

software content, comprising:

a plurality of media recording disks (DVD's) with a disk security chip embedded in each said DVD, each said disk chip comprising a security key, wherein at least two of said DVD's have different disk security keys;

a first antenna disposed in said DVD which is in electrical communication with said disk security chip;

a DVD player, said player comprising a second antenna which is in wireless communication with said first antenna; and

a player security chip in electrical communication with said second antenna, said player security chip being detachable from said DVD player.

53. The secure recording medium according to claim 52 and wherein said at least two of said DVD's have common content recorded therein.

54. The secure recording medium according to claim 52 and wherein said medium has audio content and video content and said security key is different for audio content than for video content.

55. The secure recording medium according to claim 52 and wherein said DVD is substantially statically balanced.

56. The secure recording medium according to claim 52 and wherein said DVD is substantially dynamically balanced.

57. The secure recording medium according to claim 52 and wherein said player security chip decrypts data received from said disk security chip.

58. The secure recording medium according to claim 52 and wherein said player security chip is integrated into a circuit of an integrated receiver decoder of said DVD player.

59. The secure recording medium according to claim 52 and wherein

said player security chip is generally tamper-resistant.

60. The secure recording medium according to claim 52 and wherein said player security chip is generally clone-resistant.

61. The secure recording medium according to claim 52 and wherein said player security chip is upgradable.

62. The secure recording medium according to claim 52 and wherein said player security chip is backwardly compatible with a previous version of at least one of said player security chip and said disk security chip.

63. The secure recording medium according to claim 52 and wherein said player security chip performs an authentication process with said disk security chip.

64. The secure recording medium according to claim 63 and wherein said player security chip verifies legitimacy of said disk security chip by means of a function of a geometric property of said DVD.

65. The secure recording medium according to claim 64 and wherein said function is selected from the group consisting of a function of an angle between layers of said DVD, a diameter of said DVD, a thickness of said DVD and an eccentricity of said DVD.

66. The secure recording medium according to claim 52 and wherein said disk security chip performs an authentication process with said player security chip.

67. The secure recording medium according to claim 66 and wherein said authentication process comprises a mutual zero-knowledge interaction authentication process.

68. A secure recording medium comprising:
a media recording disk (DVD) with a disk security chip embedded therein;

a first antenna disposed in said DVD which is in electrical communication with said disk security chip; and

a DVD player, said player comprising a second antenna which is in wireless communication with said first antenna,

wherein said secure recording medium further comprises a player security chip in electrical communication with said second antenna, and

said player security chip is detachable from said DVD player.

69. The secure recording medium according to claim 68 and wherein said player security chip decrypts data received from said disk security chip.

70. The secure recording medium according to claim 68 and wherein said player security chip is integrated into a circuit of an integrated receiver decoder of said DVD player.

71. The secure recording medium according to claim 68 and wherein said player security chip is generally tamper-resistant.

72. The secure recording medium according to claim 68 and wherein said player security chip is generally clone-resistant.

73. The secure recording medium according to claim 68 and wherein said player security chip is upgradable.

74. The secure recording medium according to claim 68 and wherein said player security chip is backwardly compatible with a previous version of at least one of said player security chip and said disk security chip.

79. A method for protecting access to content recorded on a media recording disk (DVD), comprising:

providing a disk security chip on the DVD, said disk security chip managing access to the content of the DVD;

providing a corresponding player security chip in a DVD player which is operative to play the DVD, said player security chip managing use of a data stream received from the DVD, said disk security chip being in wireless communication with said player security chip; and

providing a player key common to a plurality of said DVD players during a predetermined period of time.

80. The method according to claim 78 and comprising encrypting contents of said DVD with a content key.

81. The method according to claim 78 and comprising performing an authentication process between said disk security chip and said player security chip.

82. The method according to claim 81 and wherein said authentication process comprises a mutual zero-knowledge interaction authentication process.

83. The method according to claim 78 and wherein said disk security chip, after assuring that said DVD player is authentic, sends said DVD player said disk key.

84. The method according to claim 78 and wherein said disk security chip, after assuring that said DVD player is authentic, sends said DVD player said disk key encrypted with said player key.

85. The method according to claim 78 and wherein said player security chip verifies legitimacy of said disk key as a function of a geometric property of said DVD.

86. The method according to claim 85 and wherein said DVD is a multi-layer DVD and said geometric property is an angle between layers of said DVD.

87. The method according to claim 78 and further comprising:

said player security chip sending a random number R to said disk security chip, said random number R being different each time said DVD is played;

said disk security chip sending said player security chip an encrypted concatenation of a hash function of R, called $h(R)$, and said content key, encrypted with said disk key;

said player security chip decrypting said concatenation, and computing $h(R)$ and comparing with the $h(R)$ sent by the disk security chip;

said player security chip verifying R to be correct, thereby certifying that said disk chip really knows said player key;

said player security chip obtaining content key from said concatenation; and

said player security chip using said content key to decrypt control words that are located within ECM's in said DVD.

88. A security method for use with a secure recording medium comprising a media recording disk (DVD) with a disk security chip embedded therein, a first antenna disposed in said DVD which is in electrical communication with said disk security chip, a DVD player, said player comprising a second antenna which is in wireless communication with said first antenna, and a player security chip in electrical communication with said second antenna, the method comprising:

said player security chip verifying legitimacy of said disk security chip by means of a function of a geometric property of said DVD.--